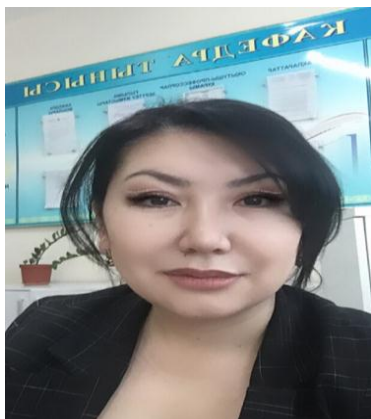


DEPARTMENT «MATHEMATICS AND INFORMATION TECHNOLOGY»



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EDUCATIONAL PROGRAMS, BACHELOR COURSE

6B06101 –Computer equipment and software

6B06102 –Information systems

6B01503 –Mathematics

6B01504 –Informatics

6B02102 -Design

TEACHING STAFF

№	Fullname	Academictitle	Academic degree	Contactdetails
1.	Mukhanova Zhamal	Master of Technical Sciences	senior lecturer	jamal.m86@mail.ru
2.	Umbetov Umirbek	Doctor of technical sciences	professor	uumbetov@mail.ru
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		of Pedagogical Sciences		
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28.	Bekishova Aigerim		lecturer	kafedra_it21@mail.ru

LISTS OF SCIENTIFIC PAPERS

№	Full name	Article titles	Country, conference title (journal, year) or authorship
1	2	3	4
1	Eskynieva Marzhan	Increasing the business creativity of students through Kazakh national ornaments	Republican scientific and practical conference “Science and youth of the 21st century”. December 8-9, 2023, Bolashak University, Kyzylorda.
		“Psychological effect of color scheme in the interior”	Khabarshinsky Bulletin is a scientific and educational magazine. No. 2 (24) 2022.
		"The role of design in human life"	Khabarshinsky Bulletin is a scientific and educational magazine. No. 2 (24) 2022.
		“Design is a type of artistic and creative activity”	A republican scientific and practical conference was organized on the topic “Science, education and technology: current problems of the 21st century.” No. 2 (26) 2023 165 p.
		“Graphics tasilderi arkyly qorshagan ortany beineleu adisteri”	“Modern science: new approaches and current research” international scientific and practical conference held at Bolashak University in Kyzylorda. 04/18/2024 158 p.
2	Umbetov Umirbek	Information support for emergency response activities rescue service	Bulletin of Karaganda State Industrial University 1(36), 2022
		Physical control methods	Physical methods of control.: Textbook: Temirtau: KarIU.2022.-180 p.
		Interpolation models of atmospheric air movement for alerting personnel based on gsm	BREAKTHROUGH SCIENTIFIC RESEARCH AS AN ENGINE OF SCIENCE: Collection of articles following the results of the nternational Scientific and Practical Conference (Taganrog, May 21, 2023). - Sterlitamak: AIR, 2023. -172 p.
		Intelligent expert automated system continuous control and monitoring	Journal "Technical Sciences and Technologies": Kyzylorda No. 1(1). 2023.
		Control systems on the base of TM6 in industry	Proceedings of the 31st International Business Information Management Association Conference, IBIMA 2018: Innovation Management and Education Excellence through Vision 2020, 2018, стр. 6566–6570
		Computer-Aided Design Systems of Decentralization on Basis of Trace Mode in Industry	<i>Proceedings – 2019 International Russian Automation Conference, RusAutoCon 2019</i> , 2019, 8867817
		Study of the innovations diffusion on the base of naming game mathematical model	<i>Compusoft</i> , 2020, 9(1), стр. 3547–3551
		Automation design systems for mechanical engineering and device node design	<i>Journal of Physics: Conference Series</i> Эта ссылка отключена., 2020, 1515(3), 032061
		Optimization of tourist transportation	<i>Journal of Theoretical and Applied Information</i> , 2020, 10(19), стр. 3032–3042

		Lakhno Development of mathematical and information support for solving prediction tasks of a railway station development	<i>Journal of Theoretical and Applied Information</i> , 2021, 99(3), стр. 583–593
		Generalized method of situational decomposition and multifunctional intelligent control systems	<i>Journal of Theoretical and Applied Information</i> , 2023, 101(14), стр. 5613–5619
3	Chertkova Elena	Automation of the pumping station (pumping station).	“Zamanauı gylym: sandyk transformation” atty Khalykaralyk student gylym-practitioner conference materials. Kyzylorda Bolashak University, April 11, 22
4	Serikbaeva Valentina Erzhanovna	“Innovative teaching methods - teaching mathematics at school as the basis for the implementation of interdisciplinary connections (project).	«Inno Fest Qyzylorda 2021» инновациялық идеялар фестивалі.
		Interdisciplinary connections in the training of future mathematics teachers	CURRENT PROBLEMS OF SCIENCE AND TECHNOLOGY Collection of scientific articles based on the materials of the XIII – International Scientific and Practical Conference Part 2 November 24, 2023, Ufa 2023
5	Kyanova Saule Baitureevna	Visual identification of some regularities in packet network traffic	<i>Eastern-European Journal of Enterprise Technologies</i> , 1(4 (127), 32–42. https://doi.org/10.15587/1729-4061.2024.299002
		Development of an online store and ways to improve its efficiency	Collection of materials of the International scientific and practical conference of students, undergraduates, doctoral students and young scientists “InnoTech Connect: Connecting ideas and technologies” of the University of Turan. – 2024 – Almaty: University of Turan. – P.166-168.
		Dynamic models of rigid and flexible plates.	Журнал IScience /Actual scientific research in the modern world.ISSUE 11(91), 2022 INTERNATIONAL SCIENCE JOURNAL. Стр.80-83
		Blockchain technology is in constant use.	BILIM-ALL magazine https://bilim-all.kz/article/21325
		Nonlinear models of building structures and evaluation of the results of their solutions	IScience magazine “Current scientific research in the modern world” ISSUE 11(79) Part 9 November 2021 Pereyaslav, Ukraine. P.7-12
		Application of information and communication technologies for the project method in teaching mathematics at university	//Materials of the Third International Scientific and Practical Online Conference “Innovative Entrepreneurial Education in the Context of Improving the Quality of Life”, University of Turan, Almaty, 2020, pp.-524-528
		Monitoring the technical condition of unique buildings	Proceedings of the international scientific conference “Modern scientific challenges and trends”// issue 10 (32) / Collection of Scientific Works/ Warsaw, Poland: Wydawnictwo Naukowe "iScience". 2020.-P.87-89. ISBN 978-83-949403-3-1

		Possibilities for supporting an intelligent information system	// Materials of the International Scientific and Practical Conference “World Economy and Professional Education in New Geopolitical Conditions”, dedicated to the 25th anniversary of Turan University. – Almaty, 2017. – pp. 175-178
		Application of information methods in the process of teaching mathematical disciplines.	// Materials of the International Scientific and Practical Conference “Current Problems of Modern Science”, dedicated to the 75th anniversary of the Honored Worker of the Republic of Kazakhstan, Doctor of Law, Professor Zhalaieri O.Sh. and the 25th anniversary of the Eurasian Law Academy named after D.A. Kunaev. – Almaty, 2017. – pp. 223-228
		Innovations in the field of teaching and educational methods	//«Young Scientist” monthly scientific magazine. – Kazan, 2015. – No. 2(82). – P.528–531
		Pedagogical conditions for the formation of a culture of educational and research activities of university students	//Advances of modern natural science. - Journal of RAE, 2015. – No. 2. – P. 178-183 Advances of modern natural science ISSN 1681-7494 "List" VAK IF RSCI = 0.831 https://natural-sciences.ru/ru/article/view?id=34725
		Ways to develop students’ logical thinking based on teaching them the qualitative aspect of mathematics	//International Journal of Applied and Basic Research. – Scientific journal RAE, 2014. – No. 12. – P.445–448 Advances of modern natural science ISSN 1681-7494 "List" VAK IF RSCI = 0.831 https://natural-sciences.ru/ru/article/view?id=34631 https://s.natural-sciences.ru/pdf/2014/12-4/34631.pdf
		The bringing up student s creation is the main demand of our epoch	//"Young Scientist" monthly scientific magazine. – Kazan, 2014. – No. 1.2 (60.2) – P.51-53
		Formation of ecological culture of university students - an educational problem	//Materials of the international scientific conference «Purposes, tasks and values of education in modern conditions». – Prague, 2014. – C.18-21
6	BakalbaevaGulshat	Psychological development of older schoolchildren with cerebral palsy.	IV International Scientific Conference “Modern Science and Innovation”, dedicated to the 20th anniversary of the university “Bolashak”, Kyzylorda, Kazakhstan, 99-100 better aralygy;
		Logistics system software development.	70 years of Peace, Labor and Creation, International Scientific and Technical Conference dedicated to the 70th anniversary of the victory over Nazi Germany, Moscow-Kiev-Kyzylorda, 2015, 107-111 better aralygy;

		The place and importance of mathematics in the formation of professional competence.	IV International Scientific and Practical Conference “Management of innovation processes in the context of modernization of education and science” in Dusseldorf (Germany), 2022
		There is an urgent need to develop the IT industry in Kazakhstan problems	Bolashak University. Messenger. Kyzylorda, 2022.
		International scientific and practical conference on the topic “Development of highly active cathodes to improve the characteristics of electrochemical devices” // “Development of science and innovation in the education system: trends and prospects”	April 17-18, 2023, branch of the Kyzylorda Open University "Bolashak".
		Creation of an information system for assigning social state assistance.	International student scientific and practical conference “Digital Transformation”. Bolashak University. Khabarshi, 2022
		Production of solid oxide fuel cells based on Bimevox electrolyte.	Third international scientific conference “Modern mathematics: problems and applications”, dedicated to the 85th anniversary of Korkyt Ata University. Kyzylorda, 2022.
		Mobile application based on Android for traveling around Kazakhstan	Republican scientific and practical conference of students on the topic “Science and youth of the 21st century”, structural department “Bolashak” of Kyzylorda Open University, 2023.
		Perceptron of a multilayer neural network	Republican scientific and practical conference “Science and youth of the 21st century”. December 8-9, 2023, Bolashak University, Kyzylorda.
7	Ibadulla Sabit	Variational Genetic Programming for Optimal Control System Synthesis of Mobile Robots./Preprintsof the 11th IFACSymposiumon Robot Control.	Salvador, BA, Brazil, August26-28,2015.P.113 118.(SCOPUS)
8	Usainova Gulzhamal	The importance of e-learning in the modern educational environment \ \ VIII International Scientific and Practical Conference "Innovative management and technology in the era of globalization"	Бирмингем (Великобритания) -6-8января 2021г.-5стр.
		Types of new technologies in education and ways of their effective use. IV International scientific and practical Conference “Management of innovation processes in the context of modernization of education and science”	г.Дюссельдорф, 2022.

		The importance of political advertising on the Internet \VIII International Scientific Conference "Modern Science and Innovation", Research Institute "Bolashak"	г.Кызылорда,2021г. №16(358)
		Creation of wireless local networks.	Bolashak University. Messenger. Continue A.N. 2022.
		Organization of distance learning (E-LEARNING) in universities. "Modern Science: Quantitative International student scientific and practical conference "Transformation".	Kyzylorda University "Bolashak", 2022
		Model of digital culture of future teachers in the context of digitalization of education.	Third international scientific conference "Modern mathematics: problems and applications", dedicated to the 85th anniversary of Korkyt Ata University. Kyzylorda, 2022.
		The need for professional development of future teachers of Stem learning technology	Third international scientific conference "Modern mathematics: problems and applications", dedicated to the 85th anniversary of Korkyt Ata University. Kyzylorda, 2022.
		Theoretical justification for organizing distance learning technology in the field of digital education	International scientific and practical conference "Kazakhstan in the modern world order: current challenges and development prospects." West Kazakhstan University named after M. Otemisov, 2022
		Teaching mathematics in the Stem program	International scientific and practical conference "Current problems of development of modern education". Kostanay Regional University named after Akhmet Baitursynov, 2023
		The role of mathematics in interdisciplinary STEM education at school	Kazakh National Pedagogical University named after Abay, Khabarshi Series "Physical and Mathematical Sciences" (VAK), VOLUME 82 No. 2 (2023), "Methods of teaching mathematics."
		Problems of improving the professional training of future mathematics teachers in the context of digital education	Belarusian State Pedagogical University named after Maxim Tank (Minsk, Belarus). International scientific and practical conference PHYSICS AND MATHEMATICS EDUCATION: TRADITIONS, INNOVATIONS, PROSPECTS Minsk, October 26–27, 2023
		Problems of improving professional training of future digital education specialists	Republican scientific and practical conference "Science and youth of the 21st century". December 8-9, 2023, Bolashak University, Kyzylorda.
9	Myrzanova Aliya	Use of new technologies in education. "SCIENCE OF THE XXI CENTURY" EDUCATION" collection of scientific articles.	Kyzylorda University "Bolashak", 2021
		Features of teaching schoolchildren programming in the Scratch environment	Republican scientific and practical conference "Modern scientific research: current problems, achievements and innovations" 10/07/2022

		3D modeling methods in Blender	Republican scientific and practical conference “Modern scientific research: current problems, achievements and innovations” 10/07/2022
		Features of web technologies used in the educational process	Republican scientific and practical conference “Science and youth of the 21st century”. December 8-9, 2023, Bolashak University, Kyzylorda.
		Development of the Creative Potential of Future Teachers Based on Smart Education	JET international Journal of Emerging Technologies in Learning, 2023 (БД SCOPUS)
12	Shamsudinova Gulsairan	CLOUD TECHNOLOGIES “NEW DIRECTION IN THE COMPUTER INDUSTRY”	April 17-18, 2023, branch of the Kyzylorda Open University "Bolashak".
		Python programming environment	Republican scientific and practical conference “Science and youth of the 21st century”. December 8-9, 2023, Bolashak University, Kyzylorda.
		“Teaching methods of the department of mathematical modeling in high school”	Republican scientific and practical conference “Science and youth of the 21st century”. December 8-9, 2023, Bolashak University, Kyzylorda.
		Digital Kazakhstan – Digital Future	International scientific and practical conference "Development of modern science and innovation in the education system: trends and prospects." April 17-18, 2023, branch of the Kyzylorda Open University "Bolashak".
13	Mukhanova Zhamal	Fifth-generation 5G mobile communication technology: opportunities and risks.	XVI International Scientific Conference of Students and Youth “GYLYMZHANEBILIM-2021”. collection of reports. // April 12, 2021, Nur-Sultan.
		«INTERNET OF THINGS»: WHAT IS IT? REALITY OR PERSPECTIVE?	XII International Scientific and Practical Conference. GLOBAL SCIENCE AND INNOVATION 2021: CENTRALASIA. No. 1 (12). February 2021.
		Creation of an information system for assigning social state assistance. Modern Science:	International student scientific and practical conference “Digital Transformation”. Bolashak University. Khabarshi, 2022
		International scientific and practical conference “CRYPTOGRAPHIC INFORMATION PROTECTION DEVICES ON MOBILE DEVICES” // “Development of science and innovation in the education system: trends and prospects”	April 17-18, 2023, branch of the Kyzylorda Open University "Bolashak".
		The influence of plastic deformation on the formation of radiation defects in alkali halide crystals	Republican scientific and practical conference "Modern scientific research: current problems, achievements and innovations." 10/07/2022
		Devices for cryptographic information protection on mobile devices	International scientific and practical conference "Development of modern science and innovation in the education system: trends and prospects." April 17-18, 2023, branch of the Kyzylorda Open University "Bolashak".
		Cognitive value of heuristic models of artificial intelligence	Republican scientific and practical conference “Science and youth of the 21st century”. December 8-9, 2023, Bolashak University, Kyzylorda.
		Thermoelectric properties of superionic $\text{Li}_{0.11}\text{Cu}_{1.89}\text{S}$ compound	Contents lists available at ScienceDirect Heliyon, Heliyon 10 (2024) e39618
14	Kenesary Anar Begimbaykyzy	On the need for specialists to study mathematics programmer-developer	VII International Scientific and Practical Conference “Science and education in the modern world: challenges of the 21st century”, Nur-Sultan,

			Kazan 2021.-121 page
		Theoretical analysis of psychological preparation for the subject Olympiad	«Collection of scientific articles of the International Scientific and Practical Conference “Trends and Future of Development of Humanitarian Education”. - Almaty: Kazakh National Pedagogical University named after Abay, 2021. - 456 pp.
		From the experience of preparing students for subject competitions in computer science	Proceedings of the international scientific and practical online conference on the topic “Modern information technologies and computer modeling of systems.” June 8, 2021 – Kyzylorda: KU named after Korkyt Ata, 2021. 477-p.
		Mathematical modeling in the educational process.	“Innovative Processes Management in the Context of Education and Science Modernization”. Materials of the IV International Scientific-Practical Conference. In two volumes. Volume II – Dusseldorf, Germany, Regional Academy of Management, 2022-432 p
		The place and importance of mathematics in the formation of professional competence.	“Innovative Processes Management in the Context of Education and Science Modernization”. Materials of the IV International Scientific-Practical Conference. In two volumes. Volume II – Dusseldorf, Germany, Regional Academy of Management, 2022-432 p
		Digital tools in teaching mathematics. Review and outlook	XII International Scientific and Practical Conference “SCIENCE AND EDUCATION IN THE MODERN WORLD: CHALLENGES OF THE XXI CENTURY” kabyldanda.
		Using numerical solutions in teaching mathematics	3rd International Conference “Taiman Readings” “Modern Mathematics: Problems and Applications”, dedicated to the 85th anniversary of Ata Korkyt Kyzylorda University, November 25, 2022.
		Application of mathematical constructions as a problem of preparing students for programming Olympiads	(He was sent to participate in the conference during an internship at the Plekhonov Russian University of Economics)
15	Dayyrbek Nurdaulet Madibekuly	The use of lowcode and no-code platforms in educational services for students of educational institutions	Collection of works of the International Scientific and Practical. conference “Current problems of regional economic development”, dedicated to the 70th anniversary. honorary prof. KU named after Korkyt Ata, Ph.D. Nauryzbaeva A.Zh. from 04/09/2024
		efficiency of work on low-code and no-code platforms	Printing house of the Kazakh Agrotechnical Research University named after. S. Seifullina, (March 17, 2023): Sat. material. International scientific - practical conference - Astana, 2023. - 372 p.
		Development of a mobile application course for the educational set lego Mindstorms ev3	Publishing house of NJSC "Karaganda University named after. acad. E.A. Buketova", 2023. - PDF file, 12.6 MB (359 pp.).

INFORMATION ON THE PARTICIPATION OF STUDENTS IN THE CONFERENCE

№	Full name	Subjects of proposed articles or materials	Name of participating student	In what country, in what city, in what month was it held?
1	Aimahanova Ainur	Mechanisms of formation of alkali halide crystals in a field of elastic deformation.	Ш.Бекжан Мат-20 оқу тобы	Modern science: Materials of the International Student Scientific and Practical Conference “Digital Transformation”. April 11, 2022

		Equipment for recording the absorption characteristics of alkali halide crystals	А.А.Али ИС-21 оқу тобы	Republican scientific and practical conference “Modern scientific research: current problems, achievements and innovations”10/07/2022
2	BakalbaevaGulshat	Current problems in the development of the IT industry in Kazakhstan	Әліпбаев А. ВТиПО-20	«Болашак» университеті. Хабаршы, 2022 жыл
3	Usainova Gulzhamal	Organization of distance learning in universities (ELECTRONIC LEARNING)	Бақытжанов Е.Р. ИС-20	Modern science: Materials of the International Student Scientific and Practical Conference “Digital Transformation”. April 11, 2022
4	Aimbetova Maria Tuleyovna	How to solve basic math problems in the Maple software package	Сансызбай А Мат-20 оқу тобы	Modern science: Materials of the International Student Scientific and Practical Conference “Digital Transformation”. April 11, 2022
5	Shamsudinova Gulsairan	Formation of mathematical concepts based on interdisciplinary connections	Алданов Б.Б. Мат-19 оқу тобы	It was published at the republican scientific and practical conference “Science and Youth of the 21st Century”, held in the Bolashak structural unit of the Kyzylorda Open University (April 24-25, 2023).
		Digital Kazakhstan - Digital future	Серікбай О.Ж. ИС-19 оқу тобы	Republican scientific and practical conference “Modern scientific research: current problems, achievements and innovations”10/07/2022
6	Eskynieva Marzhan	History of Graphic Design: From Cave Painting to the Digital Age	Д-23 оқу тобының студенті Киікбаева Құралай	“Young researchers: science, technology and technology” of the Republican Scientific and Practical Conference of Students, held at Bolashak University in Kyzylorda on April 12, 2024.
		Development of design thinking of future costume designers in drawing classes.	Д-20 оқу тобының студенті Қарақожа Мадияр	Republican scientific and practical conference “Science and youth of the 21st century”. April 24-25, 2023

Education and methodical work

The department maintains scientific and practical connections with higher educational institutions and training centers:

- Taraz State University named after M.H. Dulati
- Transtelecom JSC
- “GRAND master” programming school;
- Training center "Gibrat";
- Kazakhstan Institute of Standardization and Certification;

- Ozat School Institution
- KREATIVE.kz LLP
- IP "Ernur" advertising agency

Educational work

- Cultural and creative: participation in art circles, the formation of aesthetic taste, the development of student amateur art;
- Civil-patriotic: instilling socio-political literacy, preventing the spread of destructive political ideas among young people, tolerant, respectful and careful attitude to the traditions and culture, art and religion of the peoples living in multinational Kazakhstan; ensuring support for state policy;
- Moral and spiritual education for students, understanding the place and role of religion in society;
- Legal: prevention of delinquency and crime among youth;
- Physical education: development of mass sports, participation in amateur sports competitions, organization of sports activities for students;
- Social: explanation of the principles of social partnership, formation and development of the volunteer student movement.

Material and technical base

503A-auditorium "Applied Mathematics",
505A-laboratory classroom "Applied Physics"
501 A-laboratory audience "Artificial intelligence and robotics",
509 A-laboratory audience "Information technologies and Web design",
508 A-laboratory auditorium "Computer system and network",
507A-laboratory auditorium "SecurityLab",
305B-laboratory "Fundamentals of drawing and engineering graphics",
501B-laboratory of "Computer geometry and graphics",
501C-laboratory "Computer technologies",
502C-laboratory "Organization of computer networks".

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